

**REMARKS/ARGUMENTS**

This Amendment is submitted in response to the Examiner's Office Action dated October 11, 2006. Reconsideration of the application, as presently amended, is respectfully requested. Claims 1-33 were originally filed with this application. Claims 1, 4-6, and 22-29 are canceled without prejudice and Claims 2, 3, 7 and 31 have been amended for clarity purposes and not for any reason related to the statutory requirements for patentability. Hence, Claims 2, 3, 7-21 and 30-33 are currently pending.

**I. RESTRICTION ELECTION**

In response to the restriction requirement, Applicant provisionally elects Examiner-designated Group I, including Claims 1 through 21 and 30 through 33, drawn to a method, classified in class 264, subclass 140.

In accordance with the foregoing provisional elections, Applicant elects Claims 1 through 21 and 30 through 33 for examination. The remaining Claims 22 through 29 are hereby cancelled without prejudice. Applicant reserves the right to further prosecute the cancelled claims, including the right to include the cancelled claims in a divisional application.

The foregoing provisional election of claims should satisfy the restriction requirement.

**III. CLAIM OBJECTIONS**

The Examiner has objected to Claim 31 due to informalities in the Claim. Claim 31 has been amended and Applicant respectfully asserts that it is now in condition for allowance.

**IV. CLAIM REJECTION UNDER 35 USC § 112**

Claim 31 was rejected because the claim was presented in improper form. Claim 31 has been amended and Applicant respectfully asserts that it is now in condition for allowance.

**V. CLAIM REJECTION UNDER 35 USC § 102**

*1. Claim 1*

Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,017,475 issued to Cantrell ("*Cantrell*"). Claim 1 has been canceled and this rejection is therefore moot.

*2. Claims 1 and 4-6*

Claims 1 and 4-6 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,342,418 issued to Jesse ("*Jesse*"). Claims 1 and 4-6 have been canceled and this rejection is therefore moot.

**VI. CLAIM REJECTION UNDER 35 USC § 103**

*1. Claims 2, 3, 7, 8, 12, 13, 17, and 18*

Claims 2, 3, 7, 8, 12, 13, 17 and 18 are rejected under 35 U.S.C. § 103(a), as being unpatentable over *Cantrell*.

*1.a. Claims 2, 7, 12 and 17*

The Examiner states that *Cantrell* teaches a method of making combustible products but that *Cantrell* fails to teach that the grinder operating torque is between about 18,000 and 20,000 ft-lbs of torque per motor shaft. The Examiner then asserts that *Cantrell* further teaches that the grinder

works at a velocity that is dependent on the configuration of the machine and, therefore, the grinder operating torque is a result-effective variable. The Examiner then takes the position that, because the grinder torque is a result-effective variable, one of ordinary skill in the art would have obviously determined the optimum grinder operating torque through routine experimentation.

Applicant respectfully urges that the rejection of the current claims be withdrawn for several reasons. First, there is no suggestion in *Cantrell* that “routine experimentation” would have uncovered the optimum torque range and any doubt in this regard must be resolved in favor of the Applicant. The last sentence of Section 103 of the Patent Act states that “patentability shall not be negated by the manner in which the invention was made.” 35 U.S.C. § 103. The courts have long held that a decision that “routine experimentation” within the teachings of the art will defeat patentability requires a primary determination of whether or not such experimentation comes within the teachings of the art. See, e.g., *In re Fay*, 347 F.2d 597 (CCPA 1965). Whether the subsequent experimentation is termed ‘routine’ or not is of no consequence. *Id.*

In *In re Fay*, the court stated that “[t]he best one skilled in the art might glean from the prior art is that any conclusion about the operativeness of [the invention in question] not disclosed therein would be based on pure speculation, and would be the subject of experimental testing. Many of these tests are of necessity ‘routine’ tests, yet they must be so guided and directed as to eliminate the areas of speculation.” *Id.* The court went on to hold that routine experimentation does not negate patentability because the invention in question was “not concerned with optimizing proportions of prior-art compounds” nor was the prior art so “replete with operative examples of those compounds that it can be said that a line of investigation of further compounds has been indicated.” Similarly, in the present case, there is no discussion in the prior art of optimizing the grinder operating torque range, nor is the art replete with operative examples of those ranges. Accordingly, the “routine experimentation” that may have led to the optimum range as suggested by the Examiner does not negate patentability.

Secondly, in *In re Sporck*, in response to the Patent Office’s rejection under Section 103 on the grounds that experimentation would have led to the invention in question, the court held the “neither the record nor the facts supplies the factual data necessary to support the legal conclusion of obviousness of the invention at the time it was made.” We are unwilling to substitute speculation

and hindsight appraisal of the prior art for such factual data. For this reason, we think there is a doubt as to the factual basis supporting the conclusion of the board of appeals that the invention would have been obvious to one of ordinary skill in the art. Under these circumstances, the doubt should be resolved in favor of the applicant." See *In re Sporck*, 301 F.2d 686 (CCPA 1962) citing *In re Devine*, 261 F.2d 240, 241 (CCPA); *In re Altmann and Bureau*, 264 F.2d 894 (CCPA). In the present case, there is no factual basis in *Cantrell* supporting the legal conclusion that experimentation would lead to the grinder operating torque range in question. Accordingly, the rejection of the present claims should be withdrawn.

Finally, it is not at all clear that *Cantrell* recognized the grinder operating torque as a result-effective variable. While Applicant acknowledges the rule that the discovery of the optimum value of a variable in a known process is normally obvious, Applicant respectfully reminds the Examiner of the long standing exception that when the parameter optimized was not recognized to be a result-effective variable, the discovery of the optimum value of a variable in a known process is not obvious. See, e.g., *In re Antonie*, 559 F.2d 618 (CCPA 1977). In *In re Antonie*, the Patent Office asserted that it would have been obvious for one of ordinary skill in the art to try varying every parameter of a system in order to optimize the effectiveness of the system even if there is no evidence in the record that the prior art recognized that particular parameter affected the result. *Id.* The court reminded the Patent Office that "obvious to try" is not the standard of 35 U.S.C. § 103. *Id.* (citing *In re Tomlinson*, 363 F.2d 928 (CCPA 1966)). The court went on to say that "overemphasis on the routine nature of the data gathering required to arrive at appellant's discovery, after its existence became expected, overlooks the last sentence of Section 103." *Id.* (citing *In re Saether*, 492 F.2d 849, 181 (CCPA 1974)) (emphasis added). In the present case, there is no suggestion in *Cantrell* that grinder operating torque was a result-effective variable and, as a result, the optimal range claimed in the present application can not be obvious. Moreover, the Examiner's assertion that routine experimentation would have resulted in identifying the optimum range places overemphasis on the routine nature of the data gathered and is, therefore, contrary to Section 103. Accordingly, Applicant respectfully requests withdrawal of this rejection.

*1.b. Claims 3, 8, 13 and 18*

*Claims 2, 7, 12 and 17*

The Examiner states that *Cantrell* teaches a method of making combustible products but that it fails to teach that the grinder operating speed is between about 75 to about 80 rpms. The Examiner then asserts that *Cantrell* further teaches that the grinder works at a rated velocity that is dependent on the configuration of the machine and, therefore, the grinder operating torque is a result-effective variable. The Examiner then takes the position that, because the grinder operating speed is a result-effective variable, one of ordinary skill in the art would have obviously determined the optimum grinder operating speed through routine experimentation.

Applicant requests the withdrawal of the rejection of these four claims for the same reasons stated in Section 1.a above. To reiterate, first, there is no suggestion in *Cantrell* that “routine experimentation” would have uncovered the optimum torque speed and any doubt in this regard must be resolved in favor of the Applicant. In *In re Fay*, the court found that routine experimentation does not negate patentability because the invention in question was “not concerned with optimizing proportions of prior-art compounds” nor was the prior art so “replete with operative examples of those compounds that it can be said that a line of investigation of further compounds has been indicated.” Similarly, in the present case, there is no discussion in the prior art of optimizing the grinder operating speed range, nor is the art replete with operative examples of those ranges. Accordingly, the “routine experimentation” cited by the Examiner does not negate patentability.

Secondly, in *In re Sporck*, in response to the Patent Office’s rejection under Section 103 on the grounds that experimentation would have led to the invention in question, the court held that “neither the record nor the facts supplies the factual data necessary to support the legal conclusion of obviousness of the invention at the time it was made.” See *In re Sporck*, 301 F.2d 686 (CCPA 1962) In the present case, there is no factual basis in *Cantrell* supporting the legal conclusion that experimentation would lead to the grinder operating speed range in question. Accordingly, the rejection of the present claims should be withdrawn.

Finally, it is not at all clear that *Cantrell* recognized the grinder operating speed as a result-effective variable. While Applicant acknowledges the rule that the discovery of the optimum value of a variable in a known process is normally obvious, Applicant respectfully reminds the Examiner

of the long standing exception to that when the parameter optimized was not recognized to be a result-effective variable, the discovery of the optimum value of a variable in a known process is not obvious. See, e.g., *In re Antonie*, 559 F.2d 618 (CCPA 1977). In the present case, there is no suggestion in *Cantrell* that grinder operating speed was a result-effective variable and, as a result, the optimal range claimed in the present application can not be obvious. Moreover, the Examiner's assertion that routine experimentation would have resulted in identifying the optimum range places overemphasis on the routine nature of the data gathered and is, therefore, contrary to Section 103. Accordingly, Applicant respectfully requests withdrawal of this rejection.

2. *Claims 4-6, 9-11, 14-16 and 19-21*

Claims 4-6, 9-11, 14-16 and 19-21 are rejected under 35 U.S.C. § 103(a), as being unpatentable over *Cantrell* in view of *Jesse*. The Examiner acknowledges that, while *Cantrell* teaches using combustible rubbish, including plastic bottles, to make combustible products, *Cantrell* does not teach polyethylene, polypropylene or polybutylene as components of the combustible rubbish. The Examiner then asserts that *Jesse* teaches that polyethylene, polypropylene and polybutylene are elements of combustion obtained from disposable diapers and that it would have been obvious for one of ordinary skill in the art to combine the polymers in disposable diapers as taught by *Jesse* in the process of making combustible products taught by *Cantrell*.

Applicant respectfully submits that the present invention is patentable over *Cantrell* in view of *Jesse* for at least the following reasons.

**2.a. No Basis in the Art for Combining References**

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching, suggestion or incentive supporting the combination. *ACS Hospital Systems, Inc. v. Monteffiore Hospital*, 732 F. 2d 1572, 1577 (Fed. Cir. 1984). In fact, the Federal Circuit has recently held:

“most, if not all, inventions arise from a combination of old elements. . . . Thus, every element of a claimed invention may often be found in the prior art. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant.”

*In re Kotzab*, 217 F.3d 1365, 1370 (Fed. Cir. 2000).

Recently, in *In re Lee*, the court has cautioned against asserting that a combination of references was “common knowledge” or “common sense.”

“The ‘common knowledge and common sense’ on which the Board relied in rejecting *Lee*’s application are not the specialized knowledge and expertise contemplated by the Administrative Procedure Act. . . . The Board’s findings must extend to all material facts and must be documented on the record lest the ‘haze of so-called expertise’ acquire insulation from accountability. ‘Common knowledge and common sense,’ even if assumed to derive from the agency’s expertise, do not substitute for authority when the law requires authority.”

*In re Lee*, 277 F.3d 1338, 1343 (Fed. Cir. 2002).

In the present case, the Applicant teaches a method for making combustible products from recyclable materials comprising: blending feedstock, wherein said feedstock is selected substantially from the group consisting of thermoplastic material, cellulosic fibers and combinations thereof, wherein said thermoplastic material is selected from the group consisting of polyethylene, polypropylene, polystyrene, acrylonitrile-butadiene styrene, acetal copolymer, acetal homopolymer, acrylic, polybutylene and combinations thereof; inputting said blended feedstock into a grinder for the purpose of reducing the size of said blended feedstock; and compressing and extruding said reduced blended feedstock through a cuber so as to create combustible products.

*Cantrell* teaches the reduction, conversion, decomposition and destructive distillation of garbage and rubbish into useful byproducts. Col. 1, lines 25-30. *Cantrell* defines “garbage” as “decomposable wastes from food” and “rubbish” as “decomposable wastes, either combustible

(such as paper, wood or cloth) or non-combustible (such as metal, glass or ceramics).” The process taught by *Cantrell* is limited to the use of household garbage (i.e. decomposable wastes from food) as a feedstock and specifically excludes non-combustible materials. Col. 11, line 64 – col. 12, line 12. Moreover, *Cantrell* teaches that the finished product undergoes hydrolysis during the process which further confirms that *Cantrell* did not contemplate non-combustible materials from being included in the feedstock. Col. 12, lines 50-64.

By contrast, *Jesse* teaches using thermoplastic resins, including those found in disposable diapers, as one element of a feedstock for a process for making palletized fuel. This is a process that is completely unrelated to the processing of garbage (food products) taught by *Cantrell*. There simply is no teaching, suggestion, or incentive to combine the teachings of the art cited by the Examiner. Moreover, even if the art was combinable, there is no suggestion in any of the two cited patents to combine the plastic material used in *Jesse* with the food product material used in *Cantrell*. Accordingly, one of ordinary skill in the art who was looking to improve the processing of food products as taught by *Cantrell* would not consider adding plastic waste material as taught by *Jesse*.

In conclusion, there is simply no teaching, suggestion or incentive as required in *ACS Hospital Systems* to combine the prior art cited by the Examiner. Accordingly, Applicant respectfully requests withdrawal of this rejection.

**2.b. References Are Not Properly Combinable If Their Intended Purpose Is Destroyed**

The Federal Circuit has consistently held that when a rejection under § 103 is based upon the modification of a reference that destroys the intent, purpose, or function of the invention disclosed in the reference, such a proposed modification is not proper and a *prima facie* case of obviousness cannot be made. See, e.g., *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984) (“The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification.”)

The intent and purpose of the invention in *Cantrell* is “converting household garbage into useful byproducts capable of being recycled and reused or otherwise transformed into useful articles.” See, abstract. *Cantrell* defines “garbage” as “decomposable waste from foods” and



distinguishes garbage from “rubbish” which is decomposable wastes “such as paper, wood and cloth.” Col. 1, lines 12-24. *Jesse* teaches a method for making fuel pellets from “a carefully selected composition of waste raw materials” consisting of cellulosic fibers and thermoplastic resin. Col. 6, lines 26-45. *Cantrell*’s invention is not used or useful with the addition of thermoplastic resins (which is why thermoplastic resins are never even mentioned in the *Cantrell* disclosure) and the addition of “garbage” to the feedstock of *Jesse* runs completely contrary to *Jesse*’s stated requirement of a “carefully selected composition of waste material.” In short, if one were to combine garbage with the cellulosic fibers and thermoplastic resins used as feedstock in *Jesse* it would destroy the intent and purpose of the invention of *Cantrell* and the invention of *Jesse*.

Because the combination of *Cantrell* with *Jesse* would completely destroy the purpose of the invention in each case, a prima facie case of obviousness cannot be maintained. Accordingly, Applicant respectfully requests withdrawal of this rejection.

#### **2.c. Prima Facie Obviousness Requires A Reasonable Expectation of Success**

The courts require that some reason or suggestion must be found in the prior art or other evidence of record that would have led one of ordinary skill in the art to produce the claimed invention in order to properly establish a *prima facie* case of obviousness. For example, in *In re Clinton*, 527 F.2d 1226, the CCPA stated that “obviousness does not require absolute predictability but a reasonable expectation of success is necessary.” The court went on to say that, “in going from the prior art to the claimed invention, one cannot base obviousness upon what a person skilled in the art might try or might find obvious to try but rather must consider what the prior art would have led a person skilled in the art to do.” Accordingly, obviousness cannot be surmised when there is no suggestion, or expressed expectation, of success in the prior art that would have led one to perform the experimentation in the first place.

As previously discussed, the invention in *Cantrell* is the process of converting household garbage into useful byproducts capable of being recycled and reused or otherwise transformed into useful articles. *Jesse* teaches a method for making fuel pellets from “a carefully selected composition of waste raw materials” consisting of cellulosic fibers and thermoplastic resin. These processes are completely unrelated because the use of the “garbage” feedstock taught by *Cantrell* is

anathematic to the “carefully selected composition” required by *Jesse*. As a result, there is no suggestion or an expressed expectation that the use of the garbage feedstock in *Cantrell* would be successful in the process taught by *Jesse* or that the “carefully controlled composition” of feedstock taught by *Jesse* would be successful in *Cantrell*. Accordingly, Applicant respectfully requests withdrawal of this rejection.

**2.d. Non-Analogous Art Cannot Be Used to Establish Obviousness**

35 U.S.C. § 103 requires that obviousness be determined on the basis of whether, at the time the invention was made, a person of ordinary skill in the art to which the subject matter pertains would have found the claimed invention as a whole obvious. For example, in *In re Pagliaro*, 657 F.2d 1219 (CCPA 1981), the court ruled that a *prima facie* case of obviousness had not been made because non-analogous prior art had been relied upon. The invention at issue was a process for decaffeinating coffee by contacting ground coffee with a liquid, water immiscible fatty material in which the caffeine was preferentially soluble, followed by the removal of the caffeine-laden fatty material. The claimed invention was an improvement over the prior art decaffeinating processes because there was no requirement for the use of toxic solvents as a medium for extracting the caffeine. The prior art relied upon by the Patent Office related to a comparison of diuretic solubilities in oil/serum as opposed to oil/water mixtures. The court found that the reference was not concerned with the preparation of a drink or the problem of decaffeinating coffee, which was faced by the inventor. Thus the court held that there was no common environment that could form a “close relationship” between either the claimed invention or the prior art, on one hand, and the cited reference, on the other, to logically require consideration of the cited reference.

Similarly, in *In re Clay*, 966 F.2d 656 (Fed. Cir. 1992), the Federal Circuit held the prior art process references to be non-analogous to the claimed invention even though both were used in the petroleum industry and both involved handling petroleum products in volumetric enclosures. In that case, the court said that because the references show a different “field of endeavor” and different “purposes,” they defeat the possibility of dealing with a common problem and, therefore, are non-analogous art.

As previously stated, the invention in *Cantrell* is the process of “converting household garbage into useful byproducts capable of being recycled and reused or otherwise transformed into useful articles” and *Cantrell* defines “garbage” as “decomposable waste from foods” and distinguishes garbage from “rubbish” which is decomposable wastes “such as paper, wood and cloth.” *Jesse* teaches a method for making fuel pellets from “a carefully selected composition of waste raw materials” consisting of cellulosic fibers and thermoplastic resin. This presents an identical situation to that described in *In re Clay* in which the two processes showed a different “field of endeavor” and a different “purpose.” In this case, the purpose of *Cantrell* is to process decomposable waste from foods and the purpose of *Jesse* is to process a carefully selected composition of cellulosic fibers and thermoplastic resins. Consequently, an obviousness rejection cannot be supported and Applicant respectfully requests withdrawal of this rejection.

3. *Claims 30-32*

Claims 30-32 are rejected under 35 U.S.C. § 103(a), as being unpatentable over *Cantrell* in view of U.S. Patent No. 4,789,507 issued to Wesley, et. al. (“*Wesley*”). The Examiner, once again, asserts that the grinder operating torque is a result-effective variable and, therefore, it would have been obvious to one of ordinary skill in the art to have determined the optimum range through “routine experimentation.” The Examiner next acknowledges that *Cantrell* does not teach monitoring the operational characteristics of the grinder and cuber using a software application and asserts that *Wesley* teaches that, when using an extruder, the speed of the extruder is monitored as well as the pump outlet pressure. The Examiner then asserts that it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine *Wesley*’s monitoring with *Cantrell*’s process of making combustible products in order to form a feedback control of the process as well as to control the rate of flow into the extruder.

First, with respect to the Examiner’s assertion that the grinder operating torque is a result-effective variable and that it would have been obvious to one of ordinary skill in the art to have determined the optimum range through “routine experimentation,” Applicant respectfully refers the Examiner to the arguments made earlier in this paper on that point. To reiterate, first, there is no suggestion in *Cantrell* that “routine experimentation” would have uncovered the optimum operating

torque and any doubt in this regard must be resolved in favor of the Applicant. In *In re Fay*, the court found that routine experimentation does not negate patentability because the invention in question was “not concerned with optimizing proportions of prior-art compounds” nor was the prior art so “replete with operative examples of those compounds that it can be said that a line of investigation of further compounds has been indicated.” Similarly, in the present case, there is no discussion in the prior art of optimizing the grinder operating torque range, nor is the art replete with operative examples of those ranges. Accordingly, the “routine experimentation” cited by the Examiner does not negate patentability.

Secondly, in *In re Sporck*, in response to the Patent Office’s rejection under Section 103 on the grounds that experimentation would have led to the invention in question, the court held the “neither the record nor the facts supplies the factual data necessary to support the legal conclusion of obviousness of the invention at the time it was made.” See *In re Sporck*, 301 F.2d 686 (CCPA 1962) In the present case, there is no factual basis in *Cantrell* supporting the legal conclusion that experimentation would lead to the grinder operating torque range in question. Accordingly, the rejection of the present claims should be withdrawn.

Finally, it is not at all clear that *Cantrell* recognized the grinder operating torque as a result-effective variable. While Applicant acknowledges the rule that the discovery of the optimum value of a variable in a known process is normally obvious, Applicant respectfully reminds the Examiner of the long standing exception to that when the parameter optimized was not recognized to be a result-effective variable, the discovery of the optimum value of a variable in a known process is not obvious. See, e.g., *In re Antonie*, 559 F.2d 618 (CCPA 1977). In the present case, there is no suggestion in *Cantrell* that grinder operating torque was a result-effective variable and, as a result, the optimal range claimed in the present application can not be obvious. Moreover, the Examiner’s assertion that routine experimentation would have resulted in identifying the optimum range places overemphasis on the routine nature of the data gathered and is, therefore, contrary to Section 103. Accordingly, Applicant respectfully requests withdrawal of this rejection.

With respect to the Examiner’s assertion that it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine *Wesley*’s monitoring with *Cantrell*’s process of making combustible products in order to form a feedback control of the process as well

as to control the rate of flow into the extruder, Applicant respectfully submits that the present invention is patentable over *Cantrell* in view of *Wesley* for at least the following reasons.

**3.a. No Basis in the Art for Combining References**

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching, suggestion or incentive supporting the combination. *ACS Hospital Systems, Inc. v. Monteffiore Hospital*, 732 F. 2d 1572, 1577 (Fed. Cir. 1984).

In the present case, the Applicant teaches a method for manufacturing a combustible product comprising supplying feedstock into a grinder, wherein said feedstock is selected substantially from the group consisting of thermoplastic material, cellulosic fibers and combinations thereof; grinding said feedstock at a torque of between about 18,000 and about 20,000 ft-lbs of torque per motor shaft; feeding said ground feedstock through a cuber to form combustible products; and monitoring the operational characteristics of said grinder and said cuber using a software application, wherein said characteristics can be monitored and controlled using said software.

*Cantrell* teaches the reduction, conversion, decomposition and destructive distillation of garbage and rubbish into useful byproducts. See col. 1, lines 25-30. *Cantrell* defines “garbage” as “decomposable wastes from food” and “rubbish” as “decomposable wastes, either combustible (such as paper, wood or cloth) or non-combustible (such as metal, glass or ceramics).” *Cantrell* does not teach monitoring the operational characteristics of the grinder and cuber using a software application.

By contrast, *Wesley* teaches “a process for providing preceramic fibers from an organosilicon preceramic polymer by melt spinning a polymer spinning composition comprising the organosilicon preceramic polymer in the spinning apparatus in a spinning apparatus.” Col. 2, lines 45-50. The process includes a “feedback control” to “control the rate of flow of polymer chip into the extruder.” Col. 8, lines 41-56. The purpose of the feedback control is because “one or more of these parameters may be critical in observing and correcting developing tendencies for chip

crumbling and compaction of the [organosilicon preceramic] polymer in the screw flight.” Col. 9; lines 23-26. Organosilicon polymers are known to be extremely sensitive to heat and pressure. In fact, “organosilicon polymers are so friable and temperature sensitive that when they are fed to an extruder by a screwfeed machine, gravity or force feeding, excessive pressure created by such feed means, or improper screw pitch, or insufficient clearance between screw and casing, can cause pulverization of the chip, and the resulting compaction of polymer fines in the screw flights. Such compaction of polymer particles in the screw flights can cause cross-linking of the polymer due to thermal exposure, with the result being the clogging of the screwfeed and extruder.” Col. 5; lines 24-38.

There is no teaching, suggestion, or incentive to combine the monitoring taught in *Wesley* for the heightened processing requirements of a sensitive preceramic polymer with the processing of food waste taught by *Cantrell*. Moreover, even if the art was combinable, there is no suggestion in any of the two cited patents to combine the specialized monitoring taught in *Wesley* with processing of garbage taught in *Cantrell*. Accordingly, one of ordinary skill in the art who was looking to improve the processing of food waste as taught by *Cantrell* would not consider adding the monitoring taught by *Jesse*.

In conclusion, there is simply no teaching, suggestion or incentive as required in *ACS Hospital Systems* to combine the prior art cited by the Examiner. Accordingly, Applicant respectfully requests withdrawal of this rejection.

**3.b. References Are Not Properly Combinable If Their Intended Purpose Is Destroyed**

The Federal Circuit has consistently held that when a rejection under § 103 is based upon the modification of a reference that destroys the intent, purpose, or function of the invention disclosed in the reference, such a proposed modification is not proper and a *prima facie* case of obviousness cannot be made. See, e.g., *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984) (“The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification.”)

The invention in *Cantrell* is the process of “converting household garbage into useful byproducts capable of being recycled and reused or otherwise transformed into useful articles.” *Wesley* teaches a process that includes a “feedback control” to “control the rate of flow of [organosilicon preceramic] polymer chip into the extruder” because “one or more of these parameters may be critical in observing and correcting developing tendencies for chip crumbling and compaction of the [organosilicon preceramic] polymer in the screw flight.” Col. 9; lines 23-26. The purpose of the feedback loop in *Wesley* is to observe and correct the tendency for sensitive organosilicon chips to crumble. The use of this type of feedback loop in the processing of garbage (as taught by *Cantrell*) would entirely destroy the intent, purpose, or function of the invention. Because the combination of *Cantrell* with *Wesley* would completely destroy the purpose of the invention in each case, a prima facie case of obviousness cannot be maintained. Accordingly, Applicant respectfully requests withdrawal of this rejection.

### 3.c. Non-Analogous Art Cannot Be Used to Establish Obviousness

35 U.S.C. § 103 requires that obviousness be determined on the basis of whether, at the time the invention was made, a person of ordinary skill in the art to which the subject matter pertains would have found the claimed invention as a whole obvious.

As previously stated, the invention in *Cantrell* is the process of “converting household garbage into useful byproducts capable of being recycled and reused or otherwise transformed into useful articles” and *Cantrell* defines “garbage” as “decomposable waste from foods” and distinguishes garbage from “rubbish” which is decomposable wastes “such as paper, wood and cloth.” *Wesley* teaches a process that includes a “feedback control” to “control the rate of flow of [organosilicon preceramic] polymer chip into the extruder” because “one or more of these parameters may be critical in observing and correcting developing tendencies for chip crumbling and compaction of the [organosilicon preceramic] polymer in the screw flight.” Col. 9; lines 23-26. This presents an identical situation to that described in *In re Clay* in which the two processes showed a different “field of endeavor” and a different “purpose.” In this case, the purpose of *Cantrell* is to process decomposable waste from foods and the purpose of *Wesley* is to process

highly sensitive organosilicon polymers. Consequently, an obviousness rejection cannot be supported and Applicant respectfully requests withdrawal of this rejection.

4. *Claim 33*

Claim 33 is rejected under 35 U.S.C. § 103(a), as being unpatentable over *Cantrell* in view of *Wesley* and furthering view of *Jesse*. Claim 33 has been canceled and this rejection is therefore moot.

With the above arguments, Applicant respectfully suggests that it has shown why the claimed invention is not suggested by the above combination of references and that it has pointed out the deficiencies in Examiner's rejections. All of the above rejections are therefore not well founded and should be reversed.



**CONCLUSION**

In view of the foregoing remarks, the Applicant respectfully submits that all pending claims are allowable over the art of record and respectfully requests a timely Notice of Allowance.

Please direct all future correspondence for the above-identified application, and direct all telephone calls, to:

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Respectfully submitted,



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